

REMARKS

The Office Action of April 2, 2008, and the references cited therein have been carefully considered.

In this response, the specification has been amended to provide section headings and to correct noted informalities; the abstract has been amended as required by the Examiner; and the claims have been amended only to correct noted informalities.

In view of the amendments to the abstract, it is submitted that the objection thereto has been overcome, and the objection should be withdrawn.

The objection to the drawings on the grounds that FIGS. 2 and 3 lack proper crosshatching has been noted. It is pointed out, however, that FIGS. 2 and 3 are side elevational views, not cross-sectional drawings. Accordingly, no cross-hatching is required. It is, therefore, respectfully submitted that the objection to the drawings is unwarranted and should be withdrawn.

The rejection of claims 1 and 3-7 as being anticipated under 35 U.S.C. §102(b) by the German reference to Buerger has been noted, and is respectfully traversed. It is submitted that the conductor arrangement shown in Buerger is entirely different and in no way related to the conductor defined in claim 1 of the present application and the claims dependent thereon.

The invention defined in claim 1 is directed to an improved current conductor made of braided wire or formed of braided groups of wire strands intersecting one another at an angle. As is well known to those skilled in the art, the terms "braid" and "braided" refer to wire having a certain kind of twisting or interleaving of strands to form a bundle or structure. The characteristic of any "braided structure" is that the strands which form the braid are, at one time, underneath a different strand and, at other times, are above the other strands, as can clearly be seen in FIGS. 1 and 4 of the present application.

Such is not the case in the Buerger arrangement, wherein different groups of strands are not braided at all. Rather, as can clearly be seen in the drawings, the plurality of conductors 3 are simply disposed parallel to one another and wound around the insulating cylinder 2 in one direction, while the strands or wires 4 of the second group are simply likewise parallelly wound in the opposite direction so that the two groups 3 and 4 intersect. Neither group of conductors 3 or 4 is braided in itself. Rather, they are evenly spaced; and, as is clear from the drawings, the conductors from the group 4 are simply on top of the conductors of the group 3, but they are not braided in any way. The reference is not in any way concerned with braided conductors and, for this reason alone, does not anticipate claim 1 or the claims dependent thereon.

Claim 1 further recites that the braided groups of wire strands intersect one another at an angle of 90 degrees, plus or minus 30 degrees. While Buerger does disclose that the two groups of conductors 3 and 4 should intersect at an angle of 90 degrees, Buerger does not permit for any range above this 90 degree angle. For this additional reason, Buerger does not anticipate claim 1 of the present application.

Claim 1 further recites that the current conductor is used for current density exceeding 5 amps per mm². With regard to this limitation, the Office Action takes the position that since all of the claimed limitations are disclosed by Buerger, the characteristic has to be inherent. However, as noted above, Buerger does not teach even the basic limitation of a braided conductor as recited in claim 1, nor does it contain other limitations discussed above.

Accordingly, this limitation concerning the current density is not inherent in the Buerger structure. Note that Buerger is silent as to allowable current density; current density is not even an object of the reference. Rather, the object of the Buerger device is to decrease internal capacitance and inductance and to increase frequency range.

Claim 1 further recites that the strands of each group of the braided conductor are insulated from one another. With respect to this limitation, the Office Action takes the position that the Teflon® insulator of Buerger performs this purpose. This is not the case, however.

As is disclosed by Buerger, the wires of the groups 3 and 4 are solid copper wires or wires coated with silver and are not insulated from one another. While it is true that the individual strands of group 3 (i.e., the underlying group) is initially insulated from one another as they are wound in a spaced relationship, when the second group 4 is wound on top of the first group 3, the bare wire or non-insulated strands of group 4 will contact the strands of the group 3 at each crossing point, and thereby the spaced strands will be short-circuited and connected. In the present invention, the strands are braided, and are all insulated from one another, for example, by enamel, as recited in claim 4. On the other hand, the only insulator defined and described in Buerger with respect to the embodiment of FIG. 1 is the Teflon® support 2, on which the wires are wound, but which are not disposed between the intersecting wires.

Finally, claim 1 requires that the braided groups of wire continuously cover the outer surface of the spacer insert. This can clearly be seen in FIG. 1, wherein the braided wire groups 11 extend along the surface of the insulator 12 in a continuous manner. Such is not the case, however, with regard to the Buerger reference, wherein the groups of wires 3 and 4 are wound such that a distance "d" which, according to the patent, is approximately 2.5 cm, and exists with no wires covering same. Thus, Buerger discloses a non-continuous covering of the surface of the insulating insert as opposed to the continuous covering required by present claim 1.

For the above-stated reasons, it is submitted that claim 1 is allowable over Buerger under 35 U.S.C. §102(b). Claims 3-7 are each dependent on claim 1 and are submitted to be allowable for at least the same reasons as claim 1. While it is true that the Buerger reference does disclose that each group 3 and 4 contains a plurality of parallel elemental strands, as required by claim 3, as pointed out above, the groups are not braided, as required by claim 1, from which claim 3 depends. Moreover, claim 4 recites that the strands carry an enamel insulation. Contrary to the position taken in the Office Action, the reference only discloses that the insert can be Teflon®, and there is no disclosure or suggestion in this patent with regard to the FIG. 1 embodiment that there is any coating other than a silver coating on the wires, and certainly there is no

disclosure of an insulator or enamel coating, as required by present claim 4. For these additional reasons, it is submitted that these dependent claims are allowable over Buerger under 35 U.S.C. §102(b).

The rejection of claim 2 and 8 as being unpatentable under 35 U.S.C. §103(a) over Buerger has been noted and similarly is traversed. Each of these claims is dependent on claim 1 and is, therefore, allowable for at least the same reasons set forth above with regard to claim 1.

For the above-stated reasons, it is submitted that all of the pending claims, i.e., 1-8, are allowable over Buerger and are in condition for allowance. Such action and the passage of this application to issue, therefore, are respectfully requested. However, if the Examiner is of the opinion that prosecution of this application would be advanced by a personal interview, he is invited to telephone undersigned counsel to arrange for such an interview.

To the extent necessary during prosecution, Applicant hereby requests any required extension of time not otherwise requested and hereby authorizes the Commissioner to charge any required fees not otherwise authorized, including application processing, extension, and extra claims fees, to Deposit Account 06-1135.

Respectfully submitted,

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